

book consists of the full page plates of excellent line drawings. For Potamogeton there are fourteen plates illustrating thirty-three species and thirteen varieties or forms. In the case of the willows, where sixteen species are described, together with several varieties and forms, there are keys accompanied by illustrations to plants with mature leaves, to staminate plants and to pistillate plants in blossom. Other genera are treated as fully.

Scientific names used follow the International Code of Botanical Nomenclature. If the name used differs from that used in Gray's Manual or in Britton and Brown's Flora the name used in these works appears as a synonym, followed by G. or B.

If any adverse criticism were to be made of this book it would probably be of some of the species included or still more probably of species omitted. For example many botanists would not consider some of the willows as aquatics and the same would apply to many of the grasses and some at least of the twelve species of *Bidens* and nine of *Aster*. On the other hand the river birch (*Betula nigra*) would seem to deserve a place and certainly as long as any ferns are given the Virginia chain, marsh, and sensitive should be included. But Dr. Fassett anticipated this criticism: "The author is certain that no two individuals would make the same list of species; it is probable that the same individual would not make identical lists at different times." Because of this uncertainty as to the right of some plants to be considered aquatics the author has evidently included many that he considered doubtful.

The keys have been tested out for several years in Dr. Fassett's classes and proved easy to use. The book will be helpful to everyone who collects plants in ponds, lakes or marshes and along streams. The illustrations are attractive and add immeasurably to the usefulness of the book.

The Structure of Economic Plants*

R. C. BENEDICT

Although somewhat belated, it is worthwhile to publish a review of Hayward's "The Structure of Economic Plants." The text is

* The Structure of Economic Plants. H. E. Hayward. The Macmillan Co. 1938. 674 pages, 340 figures. \$4.90.

designed to serve as a text in plant anatomy. With this purpose, the author has covered the subject in two parts: Part 1, General Anatomy; Part 2, Economic Plants.

The first part serves as an excellent survey of the general field of the anatomy of higher vascular plants. Here the author has outlined and illustrated the whole field as he sees it with particular attention to definitions and clarification of terms. The second part consists of sixteen chapters, each concerned with the detailed description of the anatomy of a specific economic plant in both its nutritive and its reproductive structures. Thirteen families are represented, comprising the following genera: *Zea*, *Triticum*, *Allium*, *Cannabis*, *Beta*, *Raphanus*, *Medicago*, *Pisum*, *Linum*, *Gossypium*, *Apium*, *Ipomoea*, *Solanum*, *Lycopersicum*, *Cucurbita*, and *Lactuca*.

In both parts the author has contributed valuable discussion, both in the summary outline of the general subject, and the more compendious considerations of the particular economic plants treated. The presentation of plant anatomy with special reference to common field plants is particularly valuable, both from the botanical and the pedagogical points of view. It is a matter of common experience for teachers of general and more advanced courses to discover too often that detailed information about obvious features of everyday plants is hard to obtain. While readers of the Hayward text will not find a large number of species or all the details they may desire with respect to any one, this book is certainly valuable for reference, and should serve admirably as text.

Two Books for Amateur Gardeners*

GEORGE T. HASTINGS

The first of these is a booklet first published two years ago meant, as the title suggests, to give help and suggestions for the

* *The Northern Garden—Week by Week*. Daisy T. Abbott. University of Minnesota Press. 1938, second printing 1940. 94 pages, paper cover, 75 cents.

The Indoor Gardener. Daisy T. Abbott. University of Minnesota Press. 1939. viii+117 pages. \$1.50.